

**ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM**

**Animal Abstract**

**Element Code:** AABC02020

**Data Sensitivity:** No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Hyla arenicolor*

**COMMON NAME:** Canyon treefrog

**SYNONYMS:** *Hyla affinis*; *Hyla copii*; *Hyla coper*; *Hyla digueti*

**FAMILY:** Hylidae

**AUTHOR, PLACE OF PUBLICATION:** *Hyla affinis* Baird, 1854, Proc. Acad. Nat. Sci. Philadelphia, 7: 61. *Hyla arenicolor* Cope, 1866, J. Acad. Nat. Sci. Philadelphia, (2) 6: 84.

**TYPE LOCALITY:** Baird (1854) gave the type locality as "Northern Sonora," which was restricted to the Santa Rita Mountains, Arizona, by Smith and Taylor (1950b), and later restricted to Pena Blanca Springs, 10 mi. (16 km) NW Nogales, Santa Cruz County, Arizona, by Gorman (1960).

**TYPE SPECIMEN:** Syntypes include USNM 11410 (5 specimens), collected by J.H. Clark. Gorman (1960) designated USNM 11410a as the lectotype, the other specimens in the series becoming paralectotypes.

**TAXONOMIC UNIQUENESS:** There are 21+ species in this genus, 2 species in Arizona. *Hyla arenicolor* is separated from *Hyla eximia* on the basis of color.

**DESCRIPTION:** Adult canyon tree frogs are 1-2 in (2.5-5 cm) from the tip of their snout to their vent. Their body is well camouflaged and plump with a warty skin and dorsal markings that vary from brown, grayish, cream, olive-gray, sometimes even a little pinkish, and closely resemble the colors of the nearby rock formation. They also have irregularly shaped, darker colored blotches on their dorsal surface. Occasionally some individuals or entire populations may have no blotches. Skin color varies greatly between individuals and geographical populations. The ventral surface is light in color (white or cream), but the light ventral coloration gradually transitions to orange or yellow on the hind legs (only visible when they jump). Adult males and females are similar in color and pattern except that the males have a darkly colored (gray, black or brown) throat area. When exposed to sunlight these frogs often become a uniform grayish white. Canyon treefrogs have webbing between the toes on their hind feet but no significant webbing on their front feet. The webbing on the hind feet does not extend to the tip of the fifth toe. The definitive identification characteristics are the large circular pads on the end of each toe and the dark edged, light spot under the eye.

**AIDS TO IDENTIFICATION:** The definitive identification characteristics are the large circular pads on the end of each toe and the dark edged, light spot under the eye.

**ILLUSTRATIONS:**

- Color photo (Fridell in <http://www.npwrc.usgs.gov/narcam/idguide/harencio.htm>)  
Color photo (Leib in <http://nasa.utep.edu/chih/theland/animals/amphibians/hyar.htm>)  
Color photo (Hammerson in <http://coloherp.org/geo/species/spehyar.html>)  
Color photo (Wilson, Enderson, and Bell in <http://www.arts.arizona.edu/herp/frog07.html>)  
Color photo ([http://wc.pima.edu/Bfiero/tucsonecology/animals/amph\\_catr.htm](http://wc.pima.edu/Bfiero/tucsonecology/animals/amph_catr.htm))  
Color photo (Claeson in <http://www.mpl-pwrc.usgs.gov/amphib/primenet/haretext.html>)  
Color drawing (Stebbins 2003: Pl. 15)

**TOTAL RANGE:** Western and southeastern Colorado and southern Utah, south through Arizona and western New Mexico to northern Oaxaca. Isolated populations occur in northeastern New Mexico and the Big Bend area of western Texas.

**RANGE WITHIN ARIZONA:** Throughout Arizona except the Lower Colorado River valley (Sonoran desertscrub habitat).

**SPECIES BIOLOGY AND POPULATION TRENDS**

**BIOLOGY:** Chiefly a ground-dwelling species that occasionally climbs trees, the Canyon treefrog is usually active from February or March to October or November, depending on air temperature and elevation. They are often found clinging to the vertical face of a boulder, tucked inside a rock crevice, or on a tree trunk or limb. Their call is a series of abrupt short notes described as sounding like the *ba-a-a* of a hoarse lamb or goat, the *quack* of a duck, or single-pitched whirring sound.

**REPRODUCTION:** Air temperature, elevation and precipitation stimulate the onset of their breeding season, which ranges from March to September. After attracting a receptive female with his mating call the male grasps the female in amplexus, then fertilizes the female's eggs as they are released from her vent opening into the water. Females may lay 100 or more eggs in a single mass, which may be attached to submerged vegetation or debris, or float on the water surface. Each egg is composed of a clear jelly coat, surrounding a black embryo suspended in the center. Depending on the water temperature in the pool, fertilized eggs hatch in less than two weeks, and tadpoles metamorphose into froglets in less than 2 months. In color and shape, juvenile canyon treefrogs look like miniature adults. Tadpoles from eggs laid late in the season may delay metamorphosis, overwintering as larvae and completing their life cycle the next spring.

**FOOD HABITS:** Canyon treefrog larvae are primarily herbivores, sometimes observed "grazing" on algae covered rocks or detritus at the bottom of the pool. Once they become adults they feed on ants, beetles, centipedes, spiders, winged insects and other invertebrates.

**HABITAT:** Canyon treefrogs are a riparian obligate species, never far from the vicinity of water. They live along temporary, intermittent and permanent streams, springs, rocky canyons,

and tinaja pools. They frequent arroyos in semiarid grasslands, streams in pinon-juniper and pine-oak woodlands. They are associated with large boulders and rock outcrops along wooded canyon streams. They breed in rocky streams, in potholes in the solid rock of canyon bottoms and in rain pools on top of rock cliffs.

**ELEVATION:** From near sea level to about 9,800 ft (0-2990 m).

**PLANT COMMUNITY:** Frequents arroyos in semiarid grassland, streams bordered by cottonwoods and sycamores, including those in piñon-juniper and pine-oak woodlands, and tropical scrub forests (Mexico).

**POPULATION TRENDS:** In Arizona they appear to be stable.

### **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None  
**STATE STATUS:** None  
**OTHER STATUS:** None

**MANAGEMENT FACTORS:** Some of the factors that affect Canyon treefrog populations are ozone layer depletion, pollution, chytrid fungus, habitat loss and degradation and the introduction of non-native species. This species is vulnerable to overcollecting due to its habit of crouching exposed on rock surfaces along streams (Stebbins 2003).

**PROTECTIVE MEASURES TAKEN:**

**SUGGESTED PROJECTS:**

**LAND MANAGEMENT/OWNERSHIP:**

### **SOURCES OF FURTHER INFORMATION**

#### **REFERENCES:**

- American museum of Natural History. <http://research.amnh.org/herpetology/amphibia/index.html>
- Behler, J.L. 1979. The Audubon Society Field Guide to North American Reptiles and Amphibians. Alfred A Knopf, New York. Pp. 402-403.
- Colorado Herpetological Society. 1998. Canyon treefrog. *In* [Http://coloherp.org/geo/species/spehyar.html](http://coloherp.org/geo/species/spehyar.html).
- Degenhardt, W.G. et al. 1996. Amphibians and Reptiles of New Mexico. University of New Mexico Press, Albuquerque, New Mexico. Pp. 67-68.
- Demlong, M. 2002. Canyon Treefrog. The Arizona Riparian Council. February: Vol 15. No.1, Pp. 9-10.

- Leib, C. 1986. Canyon Treefrog. [Http://nasa.utep.edu/chih/theland/animals/amphibians/hyar.htm](http://nasa.utep.edu/chih/theland/animals/amphibians/hyar.htm). NatureServe Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6. Arlington, Virginia, USA: NatureServe. Available: <http://www.natureserve.org/explorer>. (Accessed: May 7, 2002).
- Pima Community College. 2001. Canyon treefrog. [Http://wc.pima.edu/Bfiero/tucsonecology/animals/amph\\_catr.htm](http://wc.pima.edu/Bfiero/tucsonecology/animals/amph_catr.htm).
- Stebbins, R.C. 1985. A Field Guide to Western Reptiles and Amphibians. Houghton Mifflin Company, Boston, MA. Pp.79-80.
- Tucson Herpetological Society.1996. [Http://www.arts.arizona.edu/herp/frog07.html](http://www.arts.arizona.edu/herp/frog07.html).
- USDA, Forest Service. *Hyla arenicolor*. [Http://www.fs.fed.us/r4/amphibians/canyontreefrog.htm](http://www.fs.fed.us/r4/amphibians/canyontreefrog.htm)
- USDI, Geological Survey. <http://www.npwrc.usgs.gov/narcam/idguide/harencio.htm>.
- USDI, Geological Survey. [Http://www.mp1-pwrc.usgs.gov/amphib/primenet/haretext.html](http://www.mp1-pwrc.usgs.gov/amphib/primenet/haretext.html).

**MAJOR KNOWLEDGEABLE INDIVIDUALS:****ADDITIONAL INFORMATION:**

The scientific name *Hyla arenicolor* comes from Latin for sand and color or tone.

**Revised:** 2002-05-07 (AMS)

To the user of this abstract: you may use the entire abstract or any part of it. We do request, however, that if you make use of this abstract in plans, reports, publications, etc. that you credit the Arizona Game and Fish Department. Please use the following citation:

Arizona Game and Fish Department. 20XX (= **year of last revision as indicated at end of abstract**). X...X (= **taxon of animal or plant**). Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. X pp.